

What is claimed is:

1. A method of rationalizing the functioning of a fuel vapor pressure management system that is in fluid communication with a headspace of a fuel system, the fuel system supplying fuel to an internal combustion engine of a vehicle, the method comprising:
 - providing a fuel vapor pressure management apparatus detecting an absence of leaks with respect to the headspace;
 - counting a number of leak detection tests performed by the fuel vapor pressure management apparatus;
 - counting a number of occurrences of the fuel vapor pressure management apparatus detecting an absence of a leak; and
 - evaluating the number of occurrences within a selected number of tests.
2. The method according to claim 1, wherein the fuel vapor pressure management apparatus comprises a housing defining an interior chamber; a pressure operable device separating the interior chamber into first and second portions, the pressure operable device including a poppet movable along an axis and a seal adapted to cooperatively engage the poppet, a first arrangement of the pressure operable device occurs during the leak detection test when there is a first negative pressure level in the first portion relative to the second portion and the seal is in a first deformed configuration, a second arrangement of the pressure operable device permits a first fluid flow from the second portion to the first portion when the seal is in a second deformed configuration, and a third arrangement of the pressure operable device permits a second fluid flow from the first portion to the second portion when the seal is in an undeformed configuration; and a sensor detecting the first arrangement of the pressure operable device during the leak detection test.
3. The method according to claim 1, wherein the evaluating comprises determining a statistical average of engine operating events when an absence of the leak occurs.
4. The method according to claim 3, wherein the deriving the statistical average comprises empirically measuring a number the occurrences when there is the absence of the leak.

5. The method according to claim 3, wherein the evaluating comprises determining a statistical average of a number of occurrences when there is the absence of the leak within a selected time period after the engine is turned off.
6. The method according to claim 5, wherein the selected time period is at least five minutes.
7. The method according to claim 6, wherein the selected time period is at least ten minutes.
8. The method according to claim 5, wherein the time period is selected based on the statistical average exceeding 50 percent.
9. The method according to claim 1, further comprising:
indicating a malfunction if there are none of the occurrences within the selected number of tests.
10. The method according to claim 1, wherein the selected number of tests is ten.